

While conceptually straightforward, such an approach would require the Commission to collect and analyze the requisite cost data for both the reference group and the claimant system, and enmesh the Commission in time-consuming and resource-intensive debates around the appropriate definitions of costs and the methods of cost allocation. In short, this approach may retain much of the administrative baggage of traditional cost-of-service regulation.<sup>19</sup>

Perhaps most importantly, by tying the system's allowed price to its own costs, this approach would expose consumers to the kinds of cost inefficiencies that accompany traditional cost-of-service regulation. Cable systems may be more likely to accept cost increases because they can be passed on to consumers. Nonetheless, the Commission might still consider using this approach, especially for cost elements where the potential for "overuse" of inputs is small.<sup>20</sup>

An alternative to basing "add-ons" to a system's own costs is to relate them to factors that are beyond its control. Most obviously, a cable system cannot influence many of the factor

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<sup>19</sup>However, if this approach were adopted, the Commission need not require all systems to maintain their records according to these cost categories. Rather, the Commission could collect data on a sample of systems in the reference group. The petitioning operator would then be required to demonstrate that it faced unusually high cost under the Commission's definition.

<sup>20</sup>For example, systems with above-average costs of complying with franchise requirements are unlikely to have chosen to incur those costs voluntarily. Similarly, systems that have higher costs because of underground construction are likely to have had little choice in the matter.

prices it faces in any measurable way. In the case of above-average factor prices, the adjustment should reflect both (i) the difference between the prices a system faces and the average of the prices paid by systems in the reference group, and (ii) the importance of those factors in the costs of a typical competitive system.<sup>21</sup> Thus, for example, if the price of a particular factor is 10 percent above the average, and that factor represents 50 percent of the costs of a typical system, the benchmark can be increased by 5 percent.

If a system must use more of some input than the industry average because of the nature of the area it serves, an add-on can be calculated in a similar manner. Suppose, for example, that a system must employ 20 percent more of some input than an otherwise identical system and that input contributes 30 percent of the cost of a typical competitive system.<sup>22</sup> If the factor prices are the same, the system would be allowed to charge 6 percent more than the applicable benchmark rate.

A potentially significant drawback to this approach is that the Commission is still required to define, collect, and evaluate

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<sup>21</sup>Weighting by the factor use of a typical system would avoid creating incentives to overuse a particular factor of production. Again, for the reason discussed above, the Commission may wish to permit "add-ons" only when the price difference exceeds some threshold.

<sup>22</sup>As noted, some method would have to be developed to ensure that additional use of the factor resulted from circumstances beyond the control of the system.

cost data.<sup>23</sup> Alternatively, the Commission could use as a surrogate the average revenue per subscriber per channel of the reference group. Because these systems are presumed to be charging competitive rates and offering competitive services, their revenues should approximate their costs.

The rates of these presumably competitive systems could be related to variables that affect costs that are unlikely to be measurably influenced by cable operator behavior. These should include factor prices -- most importantly wage rates, property rental rates, and energy prices -- as well as geographic and demographic characteristics of the market. Cable systems could then be permitted to demonstrate that they operate in an environment in which one or more of these factors is present, and thus that they should be permitted "add-ons" based on their higher-than-average costs. The underlying analysis might be conducted using statistical techniques, but alternative means might also be appropriate.

#### 4. Summary

We believe that each of the alternative approaches to the cost-of-service backstop outlined in this section is superior to the traditional rate-of-return approach emphasized in the Notice. These alternatives appear to be less costly and cumbersome for

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<sup>23</sup>It must also determine whether higher-than-average costs are caused by conditions beyond the system's control or are the result of inefficient behavior. However, this is an issue in all cost-of-service determinations, except those involving higher factor prices.

cable operators and for the Commission than traditional cost-of-service methods and therefore will be more accessible to operators with unusually high costs. Consumers will benefit because operators who otherwise might be financially compelled to reduce the quality or number of offerings will have a superior alternative to a full-fledged rate-of-return proceeding.

The approach yielding the greatest net benefits is probably one that contains elements of each of the alternatives discussed. For example, there may be some cost categories for which it is appropriate to compare the cable operator's own costs to those of the typical reference group system because the operator has relatively little discretion over the magnitude of those costs. In other cases, engineering or statistical cost studies relating the effects of exogenous factors to the behavior of costs might be appropriate.

Clearly, developing this backstop approach will require time and effort by the Commission and the industry. The process will include selection of the appropriate reference group, identification of market characteristics that lead to higher costs, and determination of the cost effects of those characteristics. Nonetheless, the history of the Commission's development and implementation of rate-of-return regulation for the telephone industry has been so long and tortuous that we are confident a non-traditional cost-of-service backstop approach can be implemented more rapidly.

## VI. "Traditional" Cost-of-Service Issues

This section addresses a number of issues raised in the Notice regarding the treatment of specific costs in the event the Commission adopts the proposal in the Notice. These issues are: (1) the treatment of intangible capital; (2) depreciation rates; and (3) margins on programming costs.

### 1. The Treatment of Intangible Capital

Creating intangible capital involves costs that are no less real than the costs of physical capital, and investors will not incur such costs unless they expect to earn at least a competitive return on them. As a result, in a competitive industry, prices will contain a normal return on all capital costs, including the costs of acquiring intangible capital. For example, if competitive firms must incur losses until they have developed a significant customer base, those losses are the capital costs of acquiring that base and must yield a competitive return. Similarly, the purchaser of a competitive firm must pay to acquire its intangible as well as its tangible capital. The price of such a firm will reflect both types of capital.<sup>24</sup>

For this reason, the Commission's tentative decision to exclude from the rate base all intangible capital acquired through purchase (Paragraph 40) is inconsistent with the objective of

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<sup>24</sup>Every issue of the Sunday New York Times contains advertisements for the sale of professional practices, where a portion of the purchase price clearly reflects the value of intangible capital and not the capitalized value of any prospective monopoly rents.

setting prices that reflect the costs of competitive systems. And, for similar reasons, cable systems that have not changed hands should not be prevented from earning a return on past investments that yielded intangible, as opposed to physical, capital. Although in both cases it will not be easy to determine the portion of intangible capital that should be taken into account in setting rates, that is no excuse for not considering it.

We should note here as well that the problems associated with valuing intangible capital will be less serious for the Commission if the backstop approach recommended above is adopted. This is so for two reasons. First, the issue of valuation of intangible capital will only arise in those proceedings in which a cable system claims that its intangible capital costs are unusual or extraordinary. In many other proceedings, the issue will not arise.<sup>25</sup> Second, even where a cable system claims that it has extraordinary intangible capital costs, the initial burden to make a showing will fall on the operator. The role of the Commission will be limited to judging the adequacy of the showing.

## 2. Depreciation Rates

The Commission proposes to prescribe the depreciation rates to be used by cable systems in cost-of-service proceedings. (Paragraph 27) The difficulties with this approach are obvious. First, the number of types of equipment is potentially very large, so that

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<sup>25</sup>Of course, if the Commission were to adopt rate-of-return regulation as the backstop, it would have to value intangible capital in all cost-of-service proceedings.

establishing depreciation rates will be an expensive undertaking.<sup>26</sup> Second, the technology being used by cable systems is changing rapidly, so that more equipment categories must be added over time.

Finally, rapid technological change implies that the economic life of equipment may be substantially less than its physical life, so that establishing useful lives for regulatory purposes will be both difficult and controversial. The Commission is likely to be pressed to employ very long useful lives in order to restrain prices, but such entreaties should be resisted. Otherwise, one risks retarding the introduction of new technologies that would otherwise occur.<sup>27</sup> Indeed, if long useful lives are used, regulated firms may have less advanced capital equipment than do competitive ones.<sup>28</sup>

### 3. Margins on Programming Costs

The Notice also invites comment on whether there should be a mark-up on programming expenses in order to "create incentives of cable operators to provide programming." (Note 24) There are two

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<sup>26</sup>We presume that, because of differences in the types of capital involved, the Commission will have to specify different depreciation rates for at least some plant categories.

<sup>27</sup>The Commission has tentatively concluded that its "regulatory requirements for cost-based rates should...be designed to assure that cable operators may fully respond to incentives to provide a modern communications infrastructure...." (Paragraph 9)

<sup>28</sup>More likely is that cable systems will accept the rates that result from the benchmark approach and seldom, if ever, elect cost-of-service showings.

reasons why, in principle, such a mark-up would be appropriate: the maintenance of efficient risk-sharing arrangements and creating an offset to regulatory distortions. We discuss these in turn.

#### A. Maintenance of Efficient Risk-sharing Arrangements

The relationship between a cable program service and a cable operator can be characterized as one of a common interest. Both the cable operator and the programmer may increase the profitability of carrying the service if they utilize their respective advantages. A program service's advantage is producing or contracting for programs. A cable operator's advantage is in its base of experience with the programming tastes of its subscribers and with the most effective means of promoting any particular program service, as well as cable service in general.

As a result of this accumulated experience, cable operators may, in effect, share the risks of a program service in a very particular way. By bearing some of the risk of the service's success, cable operators may be willing initially to pay a higher price for programming in return for lower prices in the future.<sup>29</sup>

By contrast, the price of a new service will initially be lower, but higher if the service is ultimately successful, if the operator assumes no risk. Since the information possessed by a cable operator will reduce the cost to the program service of searching for the most profitable programming, the cable operator

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<sup>29</sup>This assurance can be provided through a long-term contract.

could simply "give" the information to the service, and (as a result of competition among services) the price of the service to the operator would fall accordingly. However, such system-by-system transactions would likely render this approach too costly. Moreover, since many systems are relatively small, they may not incur the costs of information provision and simply free-ride on the efforts of those operators that do incur those costs. As a result, the information flow from the cable operators to the program services would be too small, resulting in higher-cost, or less valuable, programming.

Because there will be no explicit accounting for the cost of this kind of risk-bearing by cable systems, cable operators will not be compensated for this cost in a traditional cost-of-service proceeding. For example, consider an unregulated cable operator that acquires two services for its basic package. In the first period, one of the services -- the operator does not know which one -- will be successful and generate \$3 in revenues per subscriber. The other will generate no revenues. In the second period, the successful service will continue to generate \$3 in revenues and the other service will be dropped.

Because the operator is bearing some risk of each service's success or failure, the operator pays a service \$2 in each period in which the service is carried. Thus, in the first period, the services will generate combined revenues of \$3 per subscriber (the price of basic service) and the operator will incur programming costs of \$4, for a loss of \$1. In the second period, the remaining

service generates \$3 in revenues and the operator earns a \$1 profit. For both periods combined, the operator just breaks even.

Suppose, now, that the operator faces a benchmark rate of \$1.50 per channel, so that the benchmark is just satisfied in the first period. If there is no accounting for the cost of risk-bearing in a cost-of-service proceeding, the cable operator will not be able to recover this cost. In such a proceeding, the Commission would assign to the operator the explicit programming cost of only \$2 in the second period, resulting in an overall loss. A mark-up on programming expense could account for the implicit cost, and thereby encourage continued efficient risk-sharing arrangements.<sup>30</sup>

#### B. Offsetting Other Regulatory Distortions

As the Commission is aware, an infirmity of traditional cost-of-service regulation is the well-known Averch-Johnson effect. If the allowed return exceeds the firm's "true" cost of capital, the firm has an incentive to expand its rate base -- on which it earns the higher return -- by substituting capital for other inputs. As a result, the cable operator may have an incentive to attract subscribers not by more and better programming, but by adding features to its cable plant. For example, the operator may use more fiber in place of coaxial cable. While such an investment could increase the quality of the system's video and audio signals,

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<sup>30</sup>In the example, the \$1 loss in the first period is the implicit cost. If this cost were taken into account, the operator could charge \$3 for the successful service in the second period.

and is therefore valued by consumers, consumers would prefer an alternative expenditure by the cable operator. The Commission could permit a mark-up on programming expense to counter the unintended, and perhaps unknowable, effect of the "mark-up" on capital expenses and, thus, restore the appropriate balance of incentives between improvements in cable plant and programming.

## VII. Conclusion

Our purpose in this paper has been to shift the Commission's focus away from traditional cost-of-service regulation toward less costly and more effective alternatives. There are three basic reasons for our overriding concern with the Commission's emphasis on traditional cost-of-service regulation. First, the discussion in the Notice of how to implement rate-of-return regulation is fundamentally at odds with the Commission's own premise that its backstop is intended to be used only by systems experiencing unusually high costs. For example, for a number of major cost categories -- including the cost of capital and depreciation rates -- the Notice would ascribe to all cable systems some common average. However, If the purpose of the backstop is to permit cable operators to make a showing of unusually high costs, attributing to them the average costs of the industry would clearly be inapposite.

Second, traditional cost-of-service regulation is a costly backstop, whether in terms of administrative costs, time to implementation, or marketplace distortions. We conclude that the

proposed backstop will be so inaccessible to cable operators that few high-cost operators will choose to make use of it. As a result, many cable operators confronting high costs will be forced to reduce the number or quality of the cable services they provide.

Finally, the Notice suggests that marketplace distortions induced by rate-of-return regulation will be mitigated by Commission oversight of cable operator expenditures. If the Commission were to engage in an effort to second-guess the business decisions of cable operators, the entire reregulation enterprise will collapse of its own weight.

As a result, we have recommended that the Commission explore cost-of-service alternatives that could generate substantially greater benefits to the Commission, the cable industry, and consumers. We conclude that one, or a combination, of these alternatives could provide the Commission and cable operators with the requisite rate making flexibility, and thereby retain incentives for cable operators to carry the service quality sought by consumers without exposing them to a significant risk of supracompetitive prices.

## ATTACHMENT B

Statement of Financial Accounting Standards No. 71 - Accounting for the Effects of Certain Types of Regulation ("FAS 71") was issued by the Financial Accounting Standards Board (FASB) in December 1982, and became effective for fiscal years beginning after December 15, 1983. FAS 71 supersedes the Addendum, Accounting Principles for Regulated Industries, to APB Opinion 2 issued in December 1962, which outlined the general approach that had been used for accounting for rate regulated enterprises. FAS 71 provides guidance in preparing general purpose financial statements for most public utilities. Certain other companies with regulated operations that meet specified criteria are also covered. In general, the type of regulation covered by FAS 71 permits rates (prices) to be set at levels intended to recover the estimated costs of providing regulated services or products, including the cost of capital (interest costs and a provision for earnings on shareholders' investments).

1. Regulation of an enterprises's prices (hereinafter referred to as rates) is sometimes based on the enterprise's costs. Regulators use a variety of mechanisms to estimate a regulated enterprise's allowable costs,<sup>1</sup> and they allow the enterprise to charge rates that are intended to produce revenue approximately equal to those allowable costs. Specific costs that are allowable for rate-making purposes result in revenue approximately equal to the costs.

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<sup>1</sup> The term allowable costs is used throughout this Statement to refer to all costs for which revenue is intended to provide recovery. Those costs can be actual or estimated. In that context, allowable costs include interest costs and amounts provided for earnings or shareholders' investments.

3. Regulators sometimes include costs in allowable costs in a period other than the period in which the costs would be charged to expense by an unregulated enterprise. That procedure can create assets (future cash inflows that will result from the rate-making process), reduce assets (reductions of future cash inflows that will result from the rate-making process), or create liabilities (future cash outflows that will result from the rate-making process) for the regulated enterprise. For general-purpose financial reporting, an incurred cost for which a regulator permits recovery in a future period is accounted for like an incurred cost that is reimbursable under a cost-reimbursement-type contract.
5. This Statement applies to general-purpose external financial statements of an enterprise that has regulated operations that meet all of the following criteria:
  - a. The enterprise's rates for regulated services or products provided to its customers are established by or are subject to approval by an independent, third-party regulator or by its own governing board empowered by statute or contract to establish rates that bind customers.
  - b. The regulated rates are designed to recover the specific enterprise's costs of providing the regulated services or products.
  - c. In view of the demand for the regulated services or products and the level of competition, direct and indirect, it is reasonable to assume that rates set at levels that will recover the enterprise's costs can be charged to and collected from customers. This criterion requires consideration of anticipated changes in levels of demand or competition during the recovery period for any capitalized costs.
9. Rate actions of a regulator can provide reasonable assurance of the existence of an asset. An enterprise shall capitalize all or part of an incurred cost that would otherwise be charged to expense if both of the following criteria are met:
  - a. It is probable that future revenue in an amount at least equal to the capitalized cost will result from inclusion of that cost in allowable costs for rate-making purposes.

- b. Based on available evidence, the future revenue will be provided to permit recovery of the previously incurred cost rather than to provide for expected levels of similar future costs. If the revenue will be provided through an automatic rate-adjustment clause, this criterion requires that the regulator's intent clearly be to permit recovery of the previously incurred cost.

A regulatory authority may order an enterprise to capitalize and amortize a cost that would be charged to income currently by an unregulated enterprise. Unless capitalization of that cost is appropriate under FAS 71, generally accepted accounting principles require the regulated enterprise to charge the cost to income currently. Regulators by their actions have the ability to create a future economic benefit which is the essence of an asset. Paragraph 58 of FAS 71 states for example,

- 58. The economic effect cited by most respondents is the ability of a regulatory action to create a future economic benefit -- the essence of an asset. For example, consider a regulated enterprise that incurs costs to repair damage caused by a major storm. If the regulator approves recovery of the costs through rates over some future period or is expected to do so, the rate action of the regulator creates a new asset that offsets the reduction in the damaged asset. The enterprise has probably future economic benefits -- the additional revenue that will result from including the cost in allowable costs for rate-making purposes. The future benefits are obtained or controlled by the enterprise as a result of a past event -- incurring the cost that results in the Rate Order. Thus, the criteria of Concepts Statement 3 for an asset are met.

In 1984, shortly after the issuance of FAS 71, rate problems related to new nuclear generating plants of several utilities became apparent. There was considerable question whether the utilities could bill rates based on the cost of those plants to their customers without losing a major part of their customer base. This was often referred to as the "death spiral"

associated with "rate shock." Several articles in the financial press indicated that phase-in plans were likely to be adopted by regulators for certain of those utilities to moderate the initial rate increase or "rate spike", but they raised significant questions about the assurance of recovery of costs that would be deferred under such plans.

As a result of such concerns the FASB issued Statement of Financial Accounting Standards No. 92 Regulated Enterprises -- Accounting for Phase-In Plans (FAS 92) as an amendment of FASB Statement No. 71 in August 1987. FAS 92 became effective for fiscal years beginning after December 15, 1987, and it applied to existing and future phase-in plans.

Phase-in plans defer the rates intended to recover allowable costs beyond the period in which those allowable costs would be charged to expense under generally accepted accounting principles applicable to enterprises in general. When a utility completes a new plant, conventional rate-making methods establish rates to recover the allowable costs of the plant. Those allowable costs include current operating costs, depreciation, interest on borrowed funds invested in the plant, and an allowance for earnings for the utility (an amount intended to represent a fair return on the shareholders' investment in the plant). The objective of phase-in plans is to increase rates more gradually than would be the case under conventional rate-making, while providing the utility eventual recovery of all of its allowable costs and a return on investment.